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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,021	04/18/2001	Naoyuki Kobayashi	HST10112PUSA	8135
35312	7590	07/01/2004	EXAMINER	
BROOKS KUSHMAN P.C./ HENKEL CORPORATION 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075-1238			LEADER, WILLIAM T	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/787,021	Applicant(s) KOBAYASHI ET AL.	
	Examiner William T. Leader	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 5-8 and 11-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-8 and 11-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 3, 2004 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 5-8 and 11-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Independent claims 1, 22 and 25 have been amended to recite that the metal substrate consists essentially of a metal selected from the group consisting of carbon aluminum, steel, and an austenitic stainless steel. Basis in the application as filed for this newly

Art Unit: 1742

recited limitation is not apparent. Applicant refers to page 12 of the specification.

Page 12, lines 7-8 disclose that the substrate may be made of carbon steel (type S45C), austenitic stainless steel (type SUS 304), and aluminum (type A6061).

There is no mention of a carbon substrate or a broadly recited steel substrate as now claimed. The newly added limitation is considered to introduce new matter.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1, 5-8, 11-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonoda et al in view of Shimakura et al, Witte and Bjerrum et al (WO 98/09006) for the reasons of record of record and in view of the following comments.
6. As noted above, the independent claims have been amended to recite particular substrate metals. These metals include steel. As indicated in the previous office action, the prior art of record is considered to suggest that the process of Sonoda et al is applicable to a steel substrate so that applicant claims are not deemed to distinguish on this basis.
7. Applicant has additionally added the limitation that the phosphate conversion coating is applied in an amount of 6-20 gm of film per square meter of metal substrate. The thickness of an applied phosphate coating is a result effective

variable which is chosen to provide the desired properties. This is taught by Bjerrum et al which discloses that the phosphate layer has a thickness appropriate for cold forming (page 3, lines 18-19). As evidenced by the references, the choice of the amount of phosphate coating deposited (thickness) is a matter of routine optimization.

8. Applicant has also amended the claims to recite that the coating is formed without the generation of sludge. The references do not state that sludge formed in the process and are considered to teach this newly added limitation. Additionally, page 9, lines 2-5 state that the phosphate film is formed while the substrate metal is kept cathodic. Therefore, there is normally no sludge production. Sonoda et al teach that the substrate is connected as the cathode. See the abstract. Thus, Sonoda et al would not generate sludge for the same reason given by applicant.

9. Applicant's Remarks have been carefully considered but are not deemed to be persuasive. At page 11 applicant's state that Sonoda '480 indicates a lack of transference to ferrous substrate. This argument was addressed at paragraph 13, page 9 of the office action mailed October 31, 2003. The office action stated that the passage of Sonoda et al quoted by applicant shows the lack of transference of the known process for steel substrates to titanium substrates, i.e., the opposite of what applicant states. The passage cited by applicant, Sonoda et al indicates that the use of oil containing an extreme pressure agent or a soap or solid lubricant in addition to a phosphate are known useful processes for steel, but do not work in a

satisfactory way for titanium. This suggests a lack of transference of the process used for steel to titanium. Contrary to applicant's contention, Sonoda et al do not indicate a lack of transference of the inventive process with titanium to other metals such as steel. Additionally, the equations for the electrolytic process of Sonoda et al are independent of the substrate metal used.

10. At page 13 applicant argues that the titanium-based process is separate and distinct from the electrolytic process as disclosed and claimed. This argument is not persuasive. While specific metals may have certain distinctions, the prior art of record, when taken as a whole, teaches that applicability of phosphating processes such as that of Sonoda et al to steel substrates.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William T. Leader whose telephone number is 571-272-1245. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WL
William Leader
June 23, 2004

ROY KING 
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700